Before the
FEDERAL COMMUNICATIONS COMMISSION
Washington, D.C. 20554

In the Matter of	)	
	)	
Actions to Accelerate Adoption and	)	GN Docket No. 16-46
Accessibility of Broadband-Enabled Health	)	
Care Solutions and Advanced Technologies	)	

COMMENTS OF ALASKA COMMUNICATIONS

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COMMENTS OF ALASKA COMMUNICATIONS

Alaska Communications[1] hereby submits these comments in response to the Commission's Public Notice (the "Public Notice") in the above-captioned proceeding, seeking comment on regulatory, policy, technical, and infrastructure issues associated with broadband-enabled health and care, in order to enhance the Commission's understanding of the role of broadband in rural health care ("RHC") and impediments to broadband adoption by RHC providers, in order to inform the work and recommendations of the Connect2Health^{FCC} Task Force.[2]

Background and Summary

Broadband-enabled telemedicine services are critical to the delivery of health care in Alaska. These needs are felt throughout the state, which suffers everywhere from a shortage of doctors and medical facilities, and comparatively high costs of medical care, even in Anchorage. According to one analysis, only 35 percent of Alaska's primary medical care needs being met today, placing the state fourth-lowest in the nation based on this metric.[3]

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1 In these comments, "Alaska Communications" signifies the affiliates of Alaska Communications Systems Group, Inc. that provide communications services to health care providers in Alaska, including the four incumbent local exchange carriers ("ILECs"), ACS of Alaska, LLC, ACS of Anchorage, LLC, ACS of Fairbanks, LLC, and ACS of the Northland, LLC, as well as ACS Long Distance, LLC and ACS Internet, LLC.

2 Public Notice, GN Docket No. 16-46, "FCC Seeks Comment and Data on Actions to Accelerate Adoption and Accessibility of Broadband-Enabled Health Care Solutions and Advanced Technologies," FCC 17-46 (rel. Apr. 24, 2017).

3 MarketWatch, "America's Facing a Shortage of Primary Care Doctors," Apr. 4, 2016 ("The primary-care gap is particularly acute in about one-third of states, which have only half or less of their primary-care needs being met. Connecticut is a standout among the group, at

The demand for telemedicine capability is even more acute in rural Alaska, , and especially the isolated communities known as the ”Bush,” which are not on the road system or the state electric grid. Overall, while Anchorage is home to about 42 percent of the state's overall population, approximately 60 percent of the state's doctors practice there, according to a 2006 study.[4] Rural communities often have a shortage – or complete absence – of licensed physicians and specialists, and must increasingly rely on expertise and specialized equipment located in Anchorage or the lower 48 states to meet modern standards of care. Compounding the effects of this shortage of qualified care providers, difficulties inherent in delivering medical care in Alaska make its needs *greater* than those of the "average" state.[5] Inadequate access to robust and affordable broadband capacity significantly impedes the delivery of effective RHC solutions in Alaska.

The Public Notice correctly observes that broadband-enabled telemedicine technologies are highly valuable to veterans, particularly those living in rural areas.[6] These services, too, are of heightened importance in Alaska. In 2015, veterans were 12.5 percent of the population of Alaska, the highest percentage of any state, and well above the U.S. average of 7.6 percent.[7]

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about 15%, with Missouri, at 30%; Rhode Island, at 33%; Alaska, with 35%; and North Dakota, at 37%, next on the list, according to government statistics."), *available at:* http://www.marketwatch.com/story/americas-1-million-doctor-shortage-is-right-upon-us-2016-04-01.

4 Alaska Physician Supply Task Force, "Securing an Adequate Number of Physicians for Alaska's Needs," at 15 (Aug. 2006), *available at:* https://www.alaska.edu/health/downloads/PSTFweb.pdf.

5 *Id.* at 3 ("Alaska should have 10% more physicians per population than the national average because Alaska's rural nature, great distances and severe weather result in structural inefficiencies of the health care system.").

6 Public Notice at 7.

7 U.S. Census Bureau, 2015 American Community Survey, "Percent of the Civilian Population 18 Years and Over Who Are Veterans," Table R2101, *available at:* https://factfinder.census.gov/faces/tableservices/jsf/pages/productview.xhtml?src=bkmk.

The seven objectives for the Connect2Health^{FCC} Task Force are important goals,[8] but each will require an investment of resources to achieve. Overall, as discussed below, the most important actions the Commission should take to support the continued expansion of broadband-enabled telemedicine technologies in rural and Bush Alaska and thereby achieve the Commission's Connect2Health^{FCC} goals would be to:

- Increase the budget for the RHC support mechanism above the current outdated $400 million annual cap; index the cap for inflation; and provide for the rollover of any unused RHC mechanism funds to subsequent funding years;
- Increase the transparency and speed of the USAC review process for RHC funding requests, so that Applicants and service providers can receive more timely funding decisions and better plan for any funding shortfalls;
- Expand nondiscriminatory access to affordable middle mile facilities and transport services for all broadband providers that wish to serve rural and Bush communities in Alaska; and
- Modernize the rules of the RHC Telecommunications Program, as the Commission did when it created the Healthcare Connect Fund ("HCF") Program from a combination of the former Internet Access and RHC Pilot Programs, to meet the needs of RHC providers in Alaska.

As Alaska Communications points out in these comments, success stories from around the state demonstrate that the value of broadband-enabled telemedicine is already well understood and appreciated in our state. We look forward to working with the Commission to continue to improve support for these vital services.

Discussion

Alaska Communications welcomes the Commission's focus on ways in which it can foster and accelerate deployment and usage of broadband-enabled telemedicine technologies and services. Particularly in rural areas, these technologies and services dramatically improve outcomes, reduce costs, and improve the health care experience for patients and their families alike.

[8] Public Notice at 8.

To achieve the goals of the Connect2Health[FCC] Task Force, as set forth in the Public Notice, will require substantial financial and policy commitments from the FCC, as well as parallel and companion efforts from other federal agencies, state and local governments, private sector investments and public-private partnerships.

In these comments, Alaska Communications focuses on targeted points that bear most directly on its recent experiences as a provider of services supported by the RHC support mechanism in Alaska.

A. The Commission Should Double Today's Outdated Cap on the RHC Support Mechanism

In connection with the Task Force Objective III (to "strengthen the nation's telehealth infrastructure through the FCC's Rural Health Care Program and other initiatives"), the Commission asks whether the "regulatory framework for the Rural Health Care program [is] keeping pace with how broadband-enabled health care is being delivered in rural and underserved areas."[9]

In Alaska, the answer to this question is an emphatic, "No!" The recent collision of the RHC funding mechanism with the legacy $400 million program budget cap has dealt severe setbacks to RHC in the most remote parts of Alaska. The single most important step the Commission could take to continue to support the advance of telehealth deployment and adoption would be to raise the current cap on the RHC support mechanism to $800 million.

1. The Assumptions Underlying the Current Cap Are No Longer Valid

The Commission established the current $400 million annual budget in 1997, based on its estimate of the maximum demand for funding if all RHC providers requested funding for the

[9] Public Notice at 18.

maximum amount of eligible services. Notably, at the time, the Commission estimated that there were roughly 12,000 eligible rural health care providers in the nation,[10] and it limited services eligible for support to a maximum of 1.544 Mbps, *i.e.,* one DS-1 circuit, finding that, "transmission speeds above 1.544 Mbps are not necessary for the provision of health care services at the present time."[11]

While the Commission has periodically revisited these estimates, it is well past time for the Commission to do so again. Most recently, in 2012, the Commission found that there were approximately 10,000 health care providers eligible for RHC support. The SHLB Coalition has well catalogued the shortcomings in that estimate, explaining that the Commission likely undercounted over 1,000 Medicare-certified rural health clinics, as well thousands of federally qualified health center ("FQHC") delivery sites, teaching hospitals, medical schools, and rural local health departments.[12] In addition, in 2016, Congress amended Section 254 of the Communications Act of 1934, as amended, to make skilled nursing facilities ("SNFs") eligible for support from the RHC mechanism, adding an estimated 1,650 additional eligible rural health care providers to the program.[13] Taken together, the number of eligible rural health care providers in the nation well exceeds not only the Commission's 2012 understated estimate of 10,000, but also the original 1997 estimate of 12,000.

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[10] *Federal-State Joint Board on Universal Service*, CC Docket No. 96-45, First Report and Order, FCC 97-157, 12 FCC Rcd 8776 (1997), at ¶ 706 ("*First Universal Service Order*") (subsequent history omitted).

[11] *Id.* at ¶ 623.

[12] *Amendment of Part 54 of the Commission's Rules to Further Modernize the Rural Health Care Program*, WC Docket No. 02-60, Schools, Health, and Libraries Broadband Coalition Petition for Rulemaking (filed Dec. 7, 2015), at 27-30.

[13] Rural Health Care Connectivity Act of 2016, H. Rep. No. 114-582, at 5 (2016); *accord* Rural Health Care Connectivity Act of 2015, S. Rep. No. 114-368, at 5 (2016), at 5.

2. An $800 Million Budget for the RHC Support Mechanism Is Justified

An increase to $800 million would account for two decades of inflation since the program was first created in 1997. It would take into account growth in demand for broadband communications services on which telemedicine applications depend, and the Commission's periodic expansions of the quantity and type of equipment, facilities, and services that the program supports, as well as the Healthcare Connect Fund's increase in eligible support amounts compared to the legacy Internet Access Program, as discussed herein.

First, an increase to $800 million will more accurately reflect rural health care provider demand for modern broadband-enabled telemedicine services. Advances in technology, services and processes, such as video-conferencing with medical specialists, high-speed transmission of high-resolution imaging, and remote-reporting by broadband-enabled medical devices, all create increasing bandwidth demands on today's network. Moreover, RHC providers increasingly demand high-capacity bandwidth for cloud storage and remote access to voluminous electronic health records. These advances have been shown to save lives, reduce RHC costs, and improve patient experiences. Patient acceptance and demand for telemedicine capabilities accordidngly have grown with these changes, at least in Alaska. These developments have combined to steadily drive demand for increased bandwidth, speed, reliability and redundancy in services purchased by RHC providers – all of which increase the cost of meeting RHC providers' needs. Indeed, the Commission has cited similar factors in increasing the E-rate budget and indexing it for inflation.[14]

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[14] *Schools and Libraries Support Mechanism*, CC Docket No. 02-6, Sixth Report and Order, FCC 10-175, 25 FCC Rcd 18762 (2010) ("*Sixth E-rate Report and Order*"), at ¶ 35 ("We note that when the E-rate program began in 1997, basic Internet connectivity required a phone line and dial-up Internet service, which might have cost a total of less than $50 per

In 2010, when the Commission decided to index the $2.25 billion E-rate budget for inflation, the Commission found that this was a "sensible approach to gradually aligning the support provided by E-rate with the needs of schools and libraries, which the E-rate program is designed to serve" and it would "ensure that the program maintains its current purchasing power in today's dollars without significantly increasing the fund and raising the contribution factor."[15] When, in 2014, the Commission ordered a $1.5 billion increase in the annual E-rate budget, to $3.9 billion, it did so in order to ensure "a specific, sufficient, and predictable level of funding" for schools and libraries,[16] and to "provide certainty about the availability of funding for those applicants planning now to purchase high-speed broadband connectivity."[17] The RHC support mechanism simply has failed to keep pace with the demands of modern health care, and requires updating. The RHC program cap should be indexed for inflation.[18]

Second, a budget increase is particularly vital in Alaska. In Alaska, a single RHC provider may need broadband telecommunications services reaching well into the millions of

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month. Today, for basic Internet connectivity capable of supporting common applications and learning tools such as educational video content, a school or library needs broadband at speeds of at least several megabits per second, which might cost upwards of $500 per month (e.g., for a T-1 line), plus the costs of necessary internal connections."); *Modernizing the E-rate Program for Schools and Libraries*, WC Docket No. 13-184, Second Report and Order and Order on Reconsideration, FCC 14-189, 29 FCC Rcd 15538 (2014) ("*Second E-rate Modernization Order*"), at ¶ 116 (increasing the E-rate budget to $3.9 billion because the "record is clear that demand for and costs associated with high-speed broadband services will continue to grow").

15 *Sixth E-rate Report and Order* at ¶ 36.

16 *Second E-rate Modernization Order* at ¶ 114.

17 *Id.* at ¶ 115.

18 Alaska Communications has calculated that the inflation-adjusted RHC mechanism budget would be approximately $600 million, meaning that an $800 millioni figure represents only a very modest increase to account for demand from newly-eligible rural health care provider applicants and faster, more capable broadband services.

dollars annually. For Funding Year 2016, for example, despite rigorous review by the USAC's RHC Division staff and proration of funding because the fund exceeded its cap, Alaska's largest telecom provider served numerous RHC providers that have each received funding commitments of $4 million or more for this single year. In fact, this provider's Funding Year 2016 services to just four rural health care organizations, taken together, total over $40 million – more than 10 percent of all available annual RHC support nationwide.[19]

Third, a budget increase will acknowledge increased demand resulting from Commission actions to increase the level and scope of support the RHC mechanism provides. In particular, the 2012 *Healthcare Connect Fund Order* merged the former Internet Access and RHC Pilot Programs, increasing demand for support as a result. While the former Internet Access Program supported 25 percent of the cost of Internet Access services, this was increased to 65 percent under the HCF.[20] Similarly, the HCF expanded support for equipment and facilities that were formerly only available to Pilot Program participants. Finally, skilled nursing facilities were included as eligible health care providers for the first time in 2016. When the Commission retained the $400 million RHC mechanism budget in 2012, it did so in part based on the expectation that demand would not exceed $235 million annually in the following five years.[21]

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[19] *See* Rural Health Care Commitment Search Tool, *available at:* https://rhc.usac.org/rhc/public/searchCommitment (Funding Year=2016; State=AK). For 2016, these include Bristol Bay Area Health Corporation ($21.7 million in 54 separate funding requests covering 22 locations); Maniilaq Medical Center ($7.6 million in three separate funding requests); Norton Sound Health Corporation East Campus ($7.4 million in two separate funding requests); and Yukon –Kuskokwim Delta Regional Hospital ($4.2 million in five separate funding requests). Taken together, these commitments total $40.9 million.

[20] *Rural Health Care Support Mechanism*, WC Docket No, 02-60, Report and Order, FCC 12-150, 27 FCC Rcd 16678 (2012) ("*Healthcare Connect Fund Order*"), at ¶¶ 81-82.

[21] *Id.* at ¶ 98.

Demand today has clearly outstripped those expectations, and the Commission accordingly should revise the forecast.

3. The Commission Should Explore Opportunities to Increase the RHC Support Mechanism Budget that Minimize the Impact on the Contribution Factor

Alaska Communications believes that there are significant untapped sources of funding available today within the existing universal service programs that the Commission could use to increase the RHC annual budget with minimal or no impact on the other programs or the current contribution factor. These could include unused funds within the RHC support mechanism itself,[22] cash balances or unutilized space below the budget caps of other universal service mechanisms, and interest that USAC may earn (or be able to earn) on universal service funding it holds for future disbursement. Alaska Communications will continue to work with the Commission to identify these sources of funds and propose appropriate changes to the affected funding mechanisms.[23]

B. The Commission Should Oversee Increases in Transparency and Accountability of USAC Rural Health Care Review Processes

Also in connection with Objective III, the Commission seeks "comment and suggestions on how the FCC can further promote and help enable the adoption and accessibility of broadband-

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[22] *See, e.g.,* Letter from Jeffrey A. Mitchell, Lukas, Nace, Gutierrez & Sachs, LLP, "Request for Short-Term Emergency Relief Rural Health Care Program $400 Million Funding Cap," WC Docket No. 02-60 (filed Nov. 30, 2017), at 5-6 (citing the availability of unused RHC funds dating back to the inception of the RHC mechanism).

[23] While reform of the Commission's universal service contribution mechanism will be necessary to make the funding sustainable for the long term, that goal has eluded consensus for many years. Meanwhile, rural health care providers are facing a funding crisis that will undermine their ability to deliver critically-needed health care services to vulnerable rural Americans, unless the Commission acts now.

enabled health technologies, like telehealth and telemedicine, in rural and other underserved areas."[24] For rural health care providers and their service providers alike, better communication, transparency, and accountability in connection with USAC RHC staff review of funding requests would be invaluable.

This year's announcement of prorated 7.5 percent reductions in rural health care support, coming very late in the funding year when rural health care providers were ill-equipped to accommodate the change in their budgets, is a prime example. With rural rates for services funded under the Telecommunications Program extremely high in Alaska, that reduction in funding means that health care providers are facing hundreds of thousands of dollars or more in additional – and unbudgeted – costs for services that enable delivery of remote medical care via broadband. Funding reductions have forced many in Alaska to make the Hobson's choice between terminating broadband services or laying off staff, both of which are detrimental to effective patient care.[25]

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[24] Public Notice at 18 (¶ 17).

[25] Numerous Alaska hospitals, health clinics, and other providers have filed comments and waiver requests in recent weeks describing these agonizing decisions. *See, e.g., Ex parte* Letter of Sitka Counseling & Prevention Services, Inc., GN Docket No. 16-46 (filed May 23, 2017 (If Sitka Counseling is unable to replace over $490,000 in lost funding, its clinic in the remote community of Yakutat, 235 miles away, will have to close, although Sitka Counseling has worked very hard for the last eight years to build a relationship with that distant community, and they would also lose one or two clinicians in Sitka whose primary focus was Yakutat. Through telemedicine, Sitka had been able to offer residents of Yakutat, a Borough six times the size of Rhode Island, behavioral health care service, including special service to veterans.); *Ex parte* Letter of South Peninsula Behavioral Health Services, Inc., GN Docket No. 16-46 (filed May 23, 2017) (reporting that this community mental health center in Homer, Alaska is faced with downgrading its Internet speed, which will compromise its electronic records, adversely affecting its ability to maintain accurate and timely records for mental health services provided patients); *Ex parte* Letter of Peninsula Community Health Services of Alaska, GN Docket No. 16-46 (filed May 5, 2017) (reporting that cost increases as a result of a $72,000 shortfall in RHC funding could lead to the laying off of two full-time

The Commission should take steps necessary to avoid again forcing rural health care providers to make such debilitating choices. As the first year in which the rural health care funding commitment process unfolded in a constrained environment, FY 2016 was clearly a learning opportunity for Rural Health Care provider funding applicants, service providers, and the USAC RHC Division staff alike. With FY 2017 about to begin, however, it is vital that USAC be more proactive about communication and transparency. It should provide greater insight into the review process and status, demand figures and potential proration of funding requests, and more timely funding decisions. Today, mere weeks before the end of FY 2016, Alaska Communications is still awaiting decisions on funding requests that our Rural Health Care provider customers filed up to one year ago. Such severe delays place unnecessary strain on rural health care providers and broadband service providers alike.

C. The Commission Should Modernize the Rules Governing the Telecommunications Program

Just as it did when it created the HCF Program from the Internet Access and RHC Pilot Programs, the Commission should modernize the rules governing the Telecommunications Program. Even as it created the HCF Program, the Commission "recognize[d] that the RHC Telecommunications Program is particularly important for extremely remote places like Alaska."[26] While the Commission stated its hope that the HCF Program would prove attractive as a result of its more generous discounts, simpler application process, and broader range of

positions, a catastrophic loss for patients in its massive Kenai Peninsula service area covering 6,500 square miles).

[26] *Healthcare Connect Fund Order* at ¶ 342.

eligible equipment and services,[27] the Telecommunications Program remains important in Alaska today.

In 2012, the Commission committed to "consider whether the Telecommunications Program remains necessary, and if so whether reforms to the program are appropriate to ensure that any continuing support under that program is provided in a cost-effective manner," with particular focus on the needs of extremely remote places like Alaska.[28] Today, even with the HCF Program's support for 65 percent of the cost of eligible equipment and services, the extremely high cost of services in Alaska makes the rural health care provider's share of the costs of service under HCF unaffordable. The Telecommunications Program's support for charges in excess of the "urban rate" is the only viable way for many rural health care providers in Alaska to obtain affordable services. The Commission would need to create an Alaska-specific factor significantly above the HCF's current 65 percent to make HCF a viable option in Alaska.

But, the rules governing the Telecommunications Program written two decades ago for a world of tariffed low-bandwidth, circuit-switched services are increasingly unworkable. They no longer provide a meaningful framework within which health care providers can confidently seek support for modern, broadband Ethernet-based services. For example, the rules state that the "urban rate" that the rural health care provider should pay is "a rate no higher than the highest tariffed or publicly-available rate charged to a commercial customer for a functionally similar service in any city with a population of 50,000 or more in that state, calculated as if it were provided between two points within the city." Even today, Ethernet-based broadband data services used by rural health care providers are primarily sold at competitive rates driven by

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[27] *Id.*

[28] *Id.* at ¶ 343.

market conditions. They are seldom based on a tariff or publicly-available rate schedule. And, the Commission has just detariffed the vast majority of business data services, meaning that soon, there will be no tariff at all to reference.[29]

Determining the "rural rate" to be supported by USAC is an even greater challenge in rural and Bush communities of Alaska. The Commission's rules require the "rural rate" to be determined in one of the following three ways:

> As Option One, the "rural rate" may be based on the:
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> > Average of the rates actually being charged to commercial customers, other than health care providers, for identical or similar services provided by the telecommunications carrier providing the service in the rural area in which the health care provider is located, [not including] any rates reduced by universal service support mechanisms.[30]

But, rural and Bush Alaska is dotted with small communities where there are few commercial customers for high-bandwidth broadband services. Broadband service is so expensive that, in many cases, the local school, library, or rural health care provider is the only entity that can afford broadband service, after taking advantage of universal service support to offset the cost. It is therefore difficult to establish a "commercial rate" for the services being sold to rural health care providers. Compounding the problem, contract rates, terms, and conditions are considered proprietary and confidential, so it is exceedingly difficult to assemble comprehensive information that could expand the small pool of data available to any one single carrier.

> As Option Two:
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> > If the telecommunications carrier serving the health care provider is not providing any identical or similar services in the rural area, then the rural rate shall be the

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[29] *Business Data Services in an Internet Protocol Environment*, WC Docket No. 16-143, Report and Order, FCC 17-43 (rel. Apr. 28, 2107) at ¶ 160.

[30] 47 C.F.R. § 54.607(a).

> average of the tariffed and other publicly available rates, not including any rates reduced by universal service programs, charged for the same or similar services in that rural area over the same distance as the eligible service by other carriers.[31]

Tariffs, however, are becoming markedly less relevant to the Ethernet services that health care providers must purchase, in order to comply with the privacy and security rules adopted by the Department of Health and Human Services to protect the confidentiality and security of patient health information under the Health Insurance Portability and Accountability Act of 1996 ("HIPAA"),[32] as well as today's ongoing network security demands. These Ethernet services are seldom tariffed and, as discussed above, have recently been detariffed in the Commission's *BDS Order*. Even where DS-3 services remain under tariff, USAC staff are reluctant to accept comparisons to tariffed circuit-switched service rates to determine the Ethernet rate compliance under this rule. And, USAC staff have articulated no clear guidance on whether one DS-3, for example, may be deemed a "similar service" to a 50 Mbps Ethernet service or, if so, how many multiple DS-3s may be aggregated while remaining "similar" under the rule.

> <u>As Option Three:</u>
>
> If there are no tariffed or publicly available rates for such services in that rural area, or if the carrier reasonably determines that this method for calculating the rural rate is unfair, then the carrier shall submit for the state commission's approval, for intrastate rates, or the Commission's approval, for interstate rates, a cost-based rate for the provision of the service in the most economically efficient, reasonably available manner.[33]

While this rule may have been viewed as a "fail-safe" catch-all when it was adopted, it truly is no option at all today. Neither the Regulatory Commission of Alaska nor the FCC has a process in place for timely approving such rates (especially for packet-switched services) that would

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[31] 47 C.F.R. § 54.607(b).

[32] *See generally* 45 C.F.R. Parts 160, 162, 164.

[33] 47 C.F.R § 54.607(b).

make such a request for approval feasible, especially given the time frames associated with the FCC's competitive bidding process and filing window deadlines for seeking support from USAC. Indeed, with only a 28-day bidding period under the rules, it would be impossible today to gather the required "itemization of the costs of providing the requested service," 47 C.F.R.§ 54.607(b)(1), and obtain regulatory approval before the filing window closes on June 30, 2017, let alone before bids are due to the rural health care provider. And, if the rate approval was denied after the rural health care provider had already selected the winning bidder, the result could impact, or even void, the results of the entire competitive bidding process, precluding the rural health care provider from making a timely application for support at all.

Taken together, these rules work to impede rural health care provider access to modern broadband services that use contemporary network technology and designs, because they create powerful disincentives for service providers to offer – or rural health care providers to purchase – those services. Recently, Alaska Communications was the successful bidder to provide fast broadband service to a rural health care provider using a fiber ring configuration connecting multiple clinics to the Alaska Communications cloud in Anchorage, as well as the world beyond. The fiber ring offered redundant data pathways that create highly reliable and resilient service which, in the context of rural telemedicine where broadband service is vital to matters of life and health, is a paramount consideration.[34] The USAC RHC staff, however, denied funding for this service because, among other things, Alaska Communications was unable to demonstrate to

[34] *See* 47 C.F.R. § 54.603(b)(4) (requiring each rural health care provider to select the "most cost-effective method of providing the requested service or services, where the most cost-effective method of providing a service is defined as the method that costs the least *after consideration of the features, quality of transmission, reliability, and other factors* that the health care provider deems relevant to choosing a method of providing the required health care services") (emphasis added).

USAC's satisfaction the correct rural rate for the service, because we could not identify any other fiber ring in rural Alaska delivering the same speed of service to a commercial customer with the same number of locations as that proposed in the funding request. We were therefore unable to compute the necessary "average" rural commercial rate, nor did USAC accept computations showing that tariffed DS-3 services, which would have been far more costly.

D. The Commission Should Continue to Seek Opportunities to Expand Nondiscriminatory Access to Affordable Middle Mile Facilities Serving Communities in Rural and Bush Alaska

In connection with Objective I, to "promote effective policy and regulatory solutions that encourage broadband adoption and promote health IT,"[35] the Commission seeks "suggestions regarding ways in which the FCC, based on its authority, can further accelerate broadband adoption in the health care context and promote broadband-enabled health IT solutions, either on its own or working in collaboration with other agencies."[36]

Today, the most significant impediment to broadband adoption and affordability by Alaska's rural health care providers is the lack of affordable and adequate middle-mile capacity. The largest telecom provider in Alaska controls the state's largest network of terrestrial middle mile transport facilities, which are essential to the delivery of broadband services in Alaska. The Public Notice cites the benefits of "Gigabit Opportunity Zones."[37] But, gigabit opportunities require deployment of affordable facilities to support them, and those facilities are difficult to find and even harder to access at affordable rates in rural and Bush Alaska.

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[35] Public Notice at 9.

[36] *Id.* at 10.

[37] *Id.* at 9.

Particularly since receiving $88 million in federal financial assistance for deployment of its hybrid fiber and microwave middle mile network under the Broadband Initiatives Program created in the 2009 American Recovery and Reinvestment Act, Alaska's largest telecommunications provider has wielded unregulated monopoly ownership and control over the middle mile facilities necessary to serve large areas of western Alaska. It has used this control to foreclose competition, constrain availability, and maintain above-market prices for broadband services in the Bush communities the network reaches. As Commissioner O'Rielly acknowledged just last year, these past efforts to subsidize middle mile deployment in Alaska "have had a devastating impact on competition in the marketplace."[38]

In Alaska's Bush communities, which lack access to the state's road system, commercial power utilities, and other infrastructure, its pricing makes broadband service unaffordable to most businesses, but enables the state's largest telecom provider to extract excessive amounts of federal support from the RHC and E-rate support mechanisms, further distorting competition in rural Alaska. It is this ability to set and maintain prices vastly in excess of cost, while leaving RHC providers with no viable competitive alternative, that has enabled a single provider to receive between 30% and 40% of *all support disbursed from the RHC support mechanism every year* since at least 2010.[39]

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[38] *Connect America Fund*, WC Docket No. 10-90, Report and Order and Further Notice of Proposed Rulemaking, FCC 16-115, 31 FCC Rcd 10139 (2016) ("*ATA/GCI Plan Order*"), Statement of Commissioner O'Rielly.

[39] USAC Quarterly Filing Data, *available at:* http://www.usac.org/about/tools/fcc/filings/default.aspx. For example, for Funding Year 2015, GCI has received $72,541,462.60 in RHC support, which is 30.2 percent of disbursements totaling $239,946,988.49. Universal Service Administrative Company, Federal Universal Service Support Mechanisms Fund Size Projections for Third Quarter 2017 (filed May 2, 2017), at Appendix HC24.

Last year, over the dissents of then-Commissioner Pai and Commissioner Clyburn, and significant misgivings expressed by Commissioner O'Rielly, the Commission declined to impose binding middle mile deployment or access conditions on its grant of high-cost universal service support for Alaska's rate or return, wireless, and CETC carriers.[40] While it did not do so then, the Commission should continue to look for opportunities to support deployment of terrestrial middle mile transport facilities serving communities in rural and Bush Alaska, to be made available on an affordable and nondiscriminatory basis to all providers. By doing so, the

[40] *ATA/GCI Plan Order*, Dissenting Statement of Commissioner Pai ("All together these wasted payments [in the "Alaska" Plan] total $365 million, or about one quarter of the total Alaska Plan pot. That's $365 million that could be used to link off-road communities to urban Alaska as requested by the Alaska Federation of Natives, the Bering Straits Native Corporation, the Chugachmiut rural healthcare organization, and many others. That $365 million is more than eight times the $44 million grant from the Broadband Initiatives Program that launched the TERRA Southwest middle-mile network that connected 65 off-road communities in 2011. That money could provide real digital opportunities for tens of thousands of rural Americans with just a little more FCC oversight of the Alaska Plan."); Dissenting Statement of Commissioner Clyburn ("[T]he Alaska Plan does little to address the very real middle-mile problem in Alaska . . . . [W]ithout affordable middle-mile connectivity, high-cost program support spent on the last mile does little to improve communications service to Alaskans. The Brattle Group study submitted in the record estimates that 84% of the costs associated with providing 4G LTE in the relevant Remote Alaska census blocks are middle-mile costs. Indeed, some carriers likely cannot even deploy basic broadband service to their current voice customers without better middle-mile support. More fiber or microwave middle-mile capacity will reduce costs and save consumers money in the long run. Reporting on backhaul buildout—which is what this Order accomplishes on middle-mile—will not seriously move the needle. To be sure, providers are working to deploy additional middle-mile capacity, and for this I applaud them. However, the Alaska Plan was an opportunity for the state's providers to come together and once and for all solve this problem. But alas, a missed opportunity."); Statement of Commissioner O'Rielly ("While the Commission does not operate or directly fund middle mile infrastructure builds, the plan before us will complement private efforts in the state to improve middle mile availability . . . . While this solution was not my preferred one and represents a significant compromise on my part, I recognize that it will provide the stability and certainty needed to promote comprehensive investment in broadband infrastructure for consumers in one of the hardest to serve states.")

Commission can drive down prices for rural broadband services, enabling scarce support funds to go further toward achieving its Connect2Health^{FCC} goals.

Such efforts would find fertile ground in Alaska. Also germane to the Commission's request for information on "what efforts are being made at the state and local levels to address broadband health technology accessibility issues in rural and remote areas, Tribal lands, and underserved urban areas,"[41] a bill sponsored by Rep. David Guttenberg has been introduced in the House to create the "Alaska Broadband Development Commission." That body would seek opportunities to expand and improve access to broadband data and Internet access services and facilities, with particular focus on unserved and underserved areas of the state.[42] Among the goals of this legislation is to seek funding for the type of middle mile facilities to be provided on an affordable and nondiscriminatory basis for which federal universal service funding should be made available.

E. Rural Health Care Providers and Consumers Are Well Aware of the Value Proposition of Broadband in the Health Care Sector and its Potential for Addressing Health Care Disparities

In connection with Objective IV, the Commission seeks "suggestions on how the Commission can effectively increase consumer awareness about the value proposition of broadband in the health care sector."[43] In rural and Bush Alaska, the value proposition of broadband-enabled telemedicine services is well understood and appreciated. In the Alaskan Bush, where the nearest doctor or needed specialist may be hundreds of miles distant, these services literally save lives that once would have been lost due to lack of access to care. They

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41 Public Notice at ¶ 7.

42 *See* "An Act Creating the Broadband Development Commission," H.B. 246, 30th Leg., 1st Sess. (Alaska 2017).

43 Public Notice at 19.

reduce costs, improve outcomes, and improve patient experiences, because serious illnesses and injuries, which only in the recent past would have required an air evacuation to Anchorage or Seattle, can be treated and managed locally.

Rural health providers across Alaska have highlighted the multiple values of telehealth in letters sent to the FCC and Congress. For example:

- Peninsula Community Health Services of Alaska reported that through telemedicine and remote access to records, doctors can track the progress of pregnant mother's labor efficiently on line, saving multiple patient phone calls. They can travel to a remote office in a timely manner, especially for deliveries with complications, well-coordinated with other patients' needs.[44]

- The South Peninsula Hospital reported successes in treating rural stroke victims with its "telestroke" program which connects patients and emergency room doctors to neurologists in Anchorage or Seattle. Using extremely high definition cameras, the consulting neurologist can talk to patients about symptoms, evaluate patients' motor skills, view CT scans, make diagnoses and prescribe treatment. The hospital stressed the importance of speed in treatment: a victim treated within three hours of a stroke has a significantly lower risk of permanent brain damage or death than one who waits for treatment. [45]

- Bartlett Regional Hospital's Juneau facility relies on a telemedicine link with Providence Alaska Medical Center in Anchorage. Cameras monitor ICU patients' vital signs, medications, test results and other data. The hospital can retain patients who would otherwise be transferred by air to Anchorage or Seattle because of intensive care needs or due to physicians' burden of coverage.[46]

In Alaska, as discussed above, the gating item is not public awareness of the benefits of telemedicine but rather access to adequate rural health care capabilities due to the middle mile

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[44] *Ex parte* Letter of Peninsula Community Health Services of Alaska, WC Docket No. 02-60 (filed Jan. 9, 2017) (Letter to Senators Murkowski and Sullivan and Congressman Don Young, dated November 8, 2016).

[45] *Ex parte* Letter of South Peninsula Hospital, GN Docket No. 16-46 (filed May 23, 2017) (Letter to Senators Murkowski and Sullivan and Congressman Don Young, dated Jan. 9, 2017).

[46] *Ex parte* Letter of Bartlett Regional Hospital, GN Docket No. 16-46 (filed May 23, 2107) (Letter dated May 3, 2017).

gap discussed above. To address this problem, the Commission must ensure sufficient funding for and oversight of the middle mile connectivity that is essential for broadband-dependent telemedicine technologies. Alaska Communications urges the Commission to direct its effort to resolving those issues.

Conclusion

For the foregoing reasons, the Commission should (1) increase the annual budget for the rural health care support mechanism to $800 million and index the cap for inflation; (2) enhance transparency and accountability in the USAC rural health care funding review process; (3) modernize the rules of the RHC Telecommunications Program, as the Commission did when it created the HCF, to meet the needs of RHC providers in Alaska; and (4) seek opportunities to expand of nondiscriminatory access to affordable middle mile facilities and transport services for all providers that wish to serve rural and Bush communities in Alaska, and reduce costs by breaking today's unregulated monopoly control of this essential input by a single provider.

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